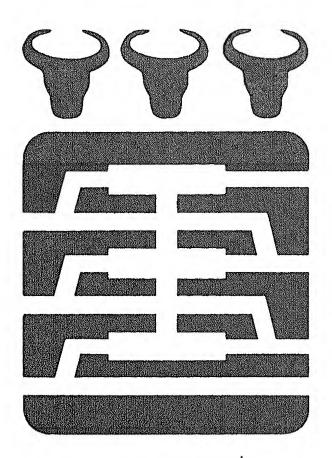
SUPPLEMENT TO MARKETING RESEARCH REPORT 1078

CONTRACT INTEGRATED, COOPERATIVE CATTLE MARKETING SYSTEM



CONTENTS

$\mathbf{P}_{\mathbf{S}}$	age
Sample marketing agreement	1
Sample feeder cattle growing contract	8
Sample cattle finishing contract	11
Sample cattle slaughtering contract	15
Description marketing and computer-assisted pooling	18
Sample marketing agreement summary form	24
Sample marketing (teleauction) consignment form	31
Analysis of teleauction results	34

Supplement to Marketing Research Report 1078

A CONTRACT INTEGRATED, COOPERATIVE CATTLE MARKETING SYSTEM

Clement E. Ward Agricultural Economist

This report contains supplemental information to <u>A Contract</u> <u>Integrated</u>, <u>Cooperative Cattle Marketing System</u>. It is intended for use by producers and cooperative boards of directors and management interested in implementing such an integrated marketing system.

This supplement contains a sample marketing agreement and sample custom feeder cattle growing, cattle finishing, and cattle slaughtering contracts. Sample legal documents are examples only and should not be used as binding documents. They should be prepared or reviewed by an attorney in collaboration with the cooperative's management and board of directors to ensure that they meet statutory requirements and the needs of the cooperative and its members.

An example of how a cooperative might develop a set of criteria to describe cattle and paper pool them with computer assistance is discussed. The example also illustrates potential advantages of cattle pooling.

Sample forms in the legal documents and other sample forms show the types of data producers can provide the cooperative and how the cooperative can use that data in the marketing effort.

Finally, two methods of analyzing teleauction prices are discussed. One method is quite simple, but provides less specific information; and thus, the two examples illustrate the trade-off between level of difficulty and usefulness of results.

SAMPLE MARKETING AGREEMENT

This agreeme	nt made	bу	and	between .		_,	here	ein referred	to
Association a				_, herei	n referred	to	as I	Producer;	

WITNESSETH:

WHEREAS, Association is a cooperative association engaged in marketing and processing (including slaughtering) cattle and products derived therefrom; and

WHEREAS, Producer is a bona fide cattle producer and is eligible for membership in Association, and Producer believes it to his advantage to have Association market and process his cattle and products derived therefrom, hereinafter referred to as cattle;

NOW THEREFORE, the parties hereby agree as follows:

Application for Membership -- By signing this agreement and paying (for example) one hundred dollars (\$100), Producer applies for membership in Association; and by signing this agreement and issuing to Producer a certificate of membership, Association accepts thereof.

Agreement to Market and Process -- Producer agrees to market and process through Association and Association agrees to market and process on behalf of Producer, all cattle except cattle sold for breeding purposes, currently and hereafter owned by Producer or produced under his control in the territory served by Association, as described in the appendix to this agreement.

Producer shall retain possession of and properly maintain and care for cattle prior to the time such cattle are loaded unto proper conveyance for shipment and delivery to place or places designated by Association, and Producer shall retain all risks of loss while he retains possession of such cattle and while such cattle are enrolled in one or more contract integration options. An absolute title to all cattle shall pass to buyer at the time cattle are sold.

Association shall make rules and regulations regarding the receiving, handling, inspecting, identifying, weighing, grading, pooling, processing, storing, shipping, and related functions of marketing and processing cattle, and provide inspectors and graders to grade such cattle. Producer agrees to observe and conform to such rules and regulations and accept the grading standards established by Association. Producer grants Association the right to enter the premises where Producer maintains cattle for inspecting and grading such cattle, and other purposes Association believes necessary.

Bargaining Agent -- Producer appoints Association its sole and exclusive agent to bargain and contract with third parties for cattle production, marketing, and processing services. Such contracts must be approved by the board of directors and when properly executed shall form a part of this agreement.

Payment to Producer -- Association shall pay Producer his proportionate share of the total proceeds derived from marketing and processing cattle hereunder less deductions for (1) advances, (2) operating and maintenance costs of Association, and (3) capital retains for the Revolving Fund as provided in the Bylaws.

Producer shall notify Association of any and all ownership interests and liens against cattle to be marketed and processed hereunder, and authorizes Association to pay the holder of such liens before any payment is made to Producer.

Term of Agreement -- This agreement shall commence on the date such agreement is signed by the parties hereto and continue in force for the

remainder of this calendar year plus three (3) consecutive calendar years, and thereafter from year to year until cancelled by either party in writing at least sixty (60) days prior to the end of the calendar year. Unless cancelled as provided herein or in the Bylaws, Producer shall provide to Association between the first and last day of November each year on forms furnished by Association (similar to the appendix to this agreement) a description of cattle covered hereunder for the subsequent calendar year.

Breach of Contract -- This agreement is one of a series, and all members of the Association have a valuable and special interest in the strict performance by all contracting parties. The amount of damages to Association resulting from any breach of this contract would be impossible to ascertain with accuracy. Therefore, Producer in the event of any breach hereof shall pay to Association as liquidated damages an amount of (for example) twenty dollars (\$20.00) per hundredweight or one hundred dollars (\$100.00) per head whichever is greater for such cattle not marketed and processed as provided herein, and Producer shall pay all costs and expenses of litigation arising therefrom. Further, Association shall, if it desires, terminate membership of Producer but such Producer after a lapse of (for example) two (2) years shall again be eligible for membership in Association.

Excused Performance -- In the event the performance of this agreement by either party hereto is prevented or delayed by act of God, war, civil insurrection, fire, flood, storm, strike, lockout, failure of machinery, equipment or material, or bylaw, regulation or order of federal, state or local authorities, or by any other cause beyond the reasonable control of such party, then the performance of this agreement by such party to the extent it is prevented or delayed, shall be excused.

Articles of Incorporation and Bylaws -- Producer agrees to abide and be bound by the Articles of Incorporation and Bylaws of Association, now in force or that will hereafter be adopted, and amended. The parties agree that there are no oral or other conditions, promises, convenants, representations, or inducements in addition to, or at variance with any terms herein.

IN WITNESS WHEREOF, the parties have read, understood, and voluntarily subscribed their names to this agreement.

Signed on the Producer	day of, 19
Social Security Number	
Mailing address	
Witnessed by Accepted on the	day of, 19
Association	
By Chief Executive Office	er; or President, Board of Directors

Marketing Agreement Appendix

Α.	Est	timated Cattle Inventory, January 1, 19		
			Number o	of head
			Beef	<u>Dairy</u>
	1.	Cows that have calved		
	2.	Replacement heifers over 500 pounds		
	3.	Bulls (for breeding) over 500 pounds		
	4.	Steers, nonreplacement heifers, and bulls (not for breeding) over 500 pounds	-	
	5.	Steers, heifers, and bulls under 500 pounds	-	
В.	Est	timated increase in cattle numbers, January 1 to	December	31, 19
			Number o	of head
			Number	
			Beef	Dairy
	1.	Purchases of cows that have calved and replacement heifers over 500 pounds		
	2.	Purchases of bulls (for breeding) over 500 pounds		
	3.	Purchases of steers, nonreplacement heifers, and bulls (not for breeding) over 500 pounds	-	·
	4.	Purchases of steers, heifers, and bulls under 500 pounds		
	5.	Calf crop		

- C. Marketing and Contract Integration Plans, January 1 to December 31, 19__.
 - 1. Feeder steers, heifers, and bulls. Fill in the table below, using the following codes.

<u>Sex</u>	Weight	2	<u>irade</u>		Integration
S = Steers H = Heifers B = Bulls	1 = 0 - 3 2 = 400 - 4 3 = 500 - 5	99 LC =	HC = High choice LC = Low choice GD = Good		Place in contract growing option
D - Duits	4 = 600 - 6 5 = 700 - 7 6 = 800 - 8	99 ST = 99	Standard	B =	Market from contract growing option
	7 = 900 - 9			C =	Place in contract finishing option
Month	Number of head	Sex	Weight	Grade	Integration
Jan.					
Feb.					Manufacture recoverable
Mar.					
Λημ	•				
Apr.					
May					
Jun.					
Jul.					Andreas de la compansa de la compans
Aug.					
Son					
Sep.					gangaganan padamannan Pindaganan padamining padaman padamining
Oct.					
Nov.					
Dec.	Description of the Color				
		Ę.			

2. Slaughter steers, heifers, and bulls. Fill in the table below, using the following codes.

<u>Sex</u>	<u>Weight</u>		<u>Grade</u>		Integration
S = Steers H = Heifers B = Bulls	1 = 0 - 3 $ 2 = 400 - 4 $ $ 3 = 500 - 5 $ $ 4 = 600 - 6 $ $ 5 = 700 - 7 $ $ 6 = 800 - 8 $ $ 7 = 900 - 9 $ $ 8 = 1,000 - 7$	199 LC = 199 GD = 199 ST = 199 199	High choice Low choice Good Standard	D =	Market from contract growing option Market from contract finishing option Place in contract slaughtering option
Month	9 = 1,100 - 10 = 1,200 - 11 = 1,300 ar Number of	1,299	<u>Weight</u>	<u>Grade</u>	Integration
2772771	head	<u> </u>	HOEBITO	<u> </u>	
Jan.			4		
Feb.		Middle ·			
Mar.					
Apr.					
May					
Jun.		Name of Advanced			
Jul.	***************************************				
Aug.			1*************************************		
Sep.					***************************************
Oct.					
Nov.			***************************************		
Dec.					
2,001					•
		6			

3. Cull cows and herd bulls. Fill in the table below, using the following codes.

Sex	Weight		<u>.</u>	<u>Grade</u>		Integration
C = Cows B = Bulls	5 = 700 6 = 800 7 = 900 8 = 1,000 9 = 1,100 10 = 1,200	- 699 - 799 - 899 - 999) - 1,099) - 1,199) - 1,299) and over	LC = GD = ST =	High choice Low choice Good Standard	E =	Place in contrasslaughtering op
Month	Number of head	<u>Sex</u>		Weight	Grade	Integration
Jan.						
Feb.						
Mar.						
Apr.				emplore and the second state of the second sta		
May						
Jun.						-
Jul.						
Aug.	-					
Sep.						and the state of t
Oct.	-					-
Nov.				· · · · · · · · · · · · · · · · · · ·		
Dec.					Harrison Har	

SAMPLE FEEDER CATTLE GROWING CONTRACT

	This agreement made by and between	,	here	ein refer	red
to	as Association;, herein referred	to	as 1	Producer;	and
	, herein referred to as Custom Grower.				

WITNESSETH:

WHEREAS, Association is a cooperative association engaged in marketing and processing cattle and products derived therefrom and is the sole and exclusive bargaining agent for Producer,

WHEREAS, Producer is a member of Association and believes it to his advantage to have Custom Grower perform specified services on Producer's cattle and products derived therefrom, herein referred to as cattle; and

WHEREAS, Custom Grower desires and is able to perform specific services relating to the production and processing of cattle;

NOW THEREFORE, the parties hereby agree as follows:

<u>Delivery and Services</u> -- Producer agrees to deliver to Custom Grower, at place or places agreed to by the parties hereto, cattle described in the appendix hereto. Association shall notify Custom Grower at least thirty (30) days in advance of the date cattle covered hereunder are scheduled to be delivered to the premises of Custom Grower and such notice shall specify the expected delivery date. Producer agrees that such cattle shall weigh at least four hundred (400) pounds, be clearly identified, dehorned, wormed, weaned, male cattle castrated, free from any contagious disease, not crippled, deformed, blind, or in any other nonmerchantable condition at the time such cattle are loaded onto proper conveyance for shipment and delivery to Custom Grower. Upon delivery. Custom Grower agrees to assume responsibility for the care and maintenance of such cattle, including but not limited to providing facilities, feed and water, veterinary services, and animal health care products, and other services Custom Grower and Association agree are necessary or desirable. Custom Grower shall not be responsible for cattle deaths unless caused by negligence.

Custom Grower shall keep a file on each delivered lot or pen of cattle showing total gain, average daily gain, and cost per pound of gain on cattle delivered hereunder. Custom Grower agrees to observe and conform to any other rules and regulations made by Association regarding feeding programs, animal health care records, death loss reporting, identifying, weighing, and related functions of producing cattle. Such rules and regulations may be attached to and considered a part of this agreement.

Custom Grower grants Association the right to enter the premises where Custom Grower maintains cattle covered hereunder for inspection, grading, and other purposes Association believes necessary.

Billing and Payment Procedures -- Custom Grower agrees to charge Producer a pasture or yardage fee, a charge for feed and animal health care, and separate charges for specific services, in accordance with the following rate table:

Service or activity

Cost or charge

Pasture or yardage Feed

Veterinary and animal health care

\$____ per head per day
Based on the price at a specified
time and place
Based on actual cost to Custom
Grower

Other Services

Custom Grower agrees to provide Producer a complete breakdown of feed used, kind, and price on each billing. Custom Grower agrees to bill Producer through Association twice each month, on the first and fifteenth day, and Producer agrees to pay Custom Grower through Association every thirty (30) days, on the first day of each month, for cattle covered hereunder. Final payment to Custom Grower shall be made by Producer within fifteen (15) days of the date such cattle are shipped from the premises of Custom Grower.

Should Producer fail to pay Custom Grower through Association within thirty (30) days of the date payment is due, Association has the right to market and process such cattle and pay Custom Grower prior to making any payment to Producer.

Term of Agreement -- This agreement becomes effective on the date signed by the parties hereto and shall continue in force until terminated as provided herein. Association shall notify Custom Grower at least seven (7) days in advance of the date cattle covered hereunder are scheduled to be shipped from the premises of Custom Grower and such notice shall specify the expected shipment date. Such notice shall constitute notice to terminate this agreement.

Excused Performance -- In the event the performance of this agreement by any party hereto is prevented or delayed by act of God, war, civil insurrection, fire, flood, storm, strike, lockout, failure of machinery, equipment or material, or bylaw, regulation or order of federal, state or local authorities, or by any other cause beyond the reasonable control of such party, then the performance of this agreement by such party to the extent it is prevented or delayed, shall be excused.

IN WITNESS WHEREOF, the parties have read, understood, and voluntarily subscribed their names to this agreement.

Signed on the $__$ day ϵ	of	, 19	•		
Producer					
Association					
Chief Executive Officer	; or	President,	Board	of	Directors
Custom Grower		·			
Name and Title			,		

Feeder Cattle Growing Contract--Appendix

Description of feeder steers, heifers, and bulls placed in custom feeder cattle growing option.

A. When do you prefer to have cattle delivered to custom grower (indicate a first and second preference)?

Preference		Month
	First third Middle third Last third	

B. Description of cattle (use the following code).

Sex	Weight	Grade
S = Steers H = Heifers B = Bulls	1 = 0-399 2 = 400-499 3 = 500-599 4 = 600-699 5 = 700-799 6 = 800-899 7 = 900-999	<pre>HC = High choice LC = Low choice GD = Good ST = Standard</pre>

. <u>1</u>	Number of head	Sex	Weight	Grade
1.		 · · · · · · · · · · · · · · · · · · ·		
2.				
4. 5.				
6. 7.				
8. 9.				
10.				

SAMPLE CATTLE FINISHING CONTRACT

	This agreement made by and between		_, h	nerein r	eferr	red
to	as Association;, herein referred	to	as	Produce	r; ar	ıd
	, herein referred to as Custom Feeder.				·	

WITNESSETH:

WHEREAS, Association is a cooperative association engaged in marketing and processing (including slaughtering) cattle and products derived therefrom and is the sole and exclusive bargaining agent for Producer;

WHEREAS, Producer is a member of Association and believes it to his advantage to have Custom Feeder perform specified services on Producer's cattle and products derived therefrom, herein referred to as cattle;

WHEREAS, Custom Feeder desires and is able to perform specific services relating to the production and processing of cattle;

NOW THEREFORE, the parties hereby agree as follows:

Delivery and Services -- Producer agrees to deliver to Custom Feeder at place or places agreed to by the parties hereto, cattle described in the appendix hereto. Association shall notify Custom Feeder at least thirty (30) days in advance of the date cattle covered hereunder are scheduled to be delivered to the premises of Custom Feeder and such notice shall specify the expected delivery date. Producer agrees that such cattle shall weigh at least six hundred (600) pounds, be clearly identified, dehorned, wormed, male cattle castrated, free from any contagious disease, not crippled, deformed, blind, or in any other nonmerchantable condition at the time such cattle are loaded onto proper conveyance for shipment and delivery to Custom Feeder.

Upon delivery, Custom Feeder agrees to assume responsibility for the care and maintenance of such cattle, including but not limited to providing pens and other facilities, feed and water, veterinary services and animal health care products, and other services Custom Feeder and Association agree are necessary or desirable. Custom Feeder shall not be responsible for cattle deaths unless caused by negligence.

Custom Feeder shall keep a file on each delivered lot or pen of cattle showing total gain, average daily gain, feed conversion, and cost per pound of gain on cattle delivered hereunder. Custom Feeder agrees to observe and conform to any other rules and regulations made by Association regarding feeding programs, animal health care records, death loss reporting, identifying, weighing, and related functions of producing cattle. Such rules and regulations may be attached to and considered a part of this agreement.

Custom Feeder grants Association the right to enter the premises where Custom Feeder maintains cattle covered hereunder for inspecting, grading, and other purposes Association believes necessary.

<u>Billing and Payment Procedure</u> -- Custom Feeder agrees to charge Producer a yardage fee, a charge for feed and feed processing, animal health care, and separate charges for specific services, in accordance with the following rate table:

Service or activity

Yardage Feed

Feed processing Veterinary and animal health care

Other services

Cost or Charge

\$____ per head per day
Based on the price at a
specified time and place.
\$___ per ton
Based on actual
cost to Custom Feeder

Custom Feeder agrees to provide Producer a complete breakdown of feed used, kind, and price on each billing. Custom Feeder agrees to bill Producer through Association twice each month, on the first and fifteenth day, and Producer agrees to pay Custom Feeder through Association every thirty (30) days, on the first day of each month, for cattle covered hereunder. Final payment to Custom Feeder shall be made by Producer within fifteen (15) days of the date such cattle are shipped from the premises of Custom Feeder.

Should Producer fail to pay Custom Feeder through Association within thirty (30) days of the date payment is due, Association has the right to market and process such cattle and pay Custom Feeder prior to making any payment to Producer.

Term of Agreement -- This agreement becomes effective on the date signed by the parties hereto and shall continue in force until terminated as provided herein. Association shall notify Custom Feeder at least seven (7) days in advance of the date cattle covered hereunder are scheduled to be shipped from the premises of Custom Feeder and such notice shall specify the expected shipment date. Such notice shall constitute notice to terminate this agreement.

Excused Performance -- In the event the performance of this agreement by any party hereto is prevented or delayed by act of God, war, civil insurrection, fire, flood, storm, strike, lockout, failure of machinery, equipment or material, or bylaw, regulation or order of federal, state or local authorities, or by any other cause beyond the reasonable control of such party, then the performance of this agreement by such party to the extent it is prevented or delayed, shall be excused.

IN WITNESS WHEREOF, the parties have read, understood, voluntarily subscribed their names to this agreement.	and
Signed on theday of, 19	
Producer	
Association	
Chief Executive Officer; or President, Board of Directors	
Custom FeederName and Title	

Cattle Finishing Contract--Appendix

Description of feeder steers, heifers, and bulls placed in custom finishing option.

A.	When do you	prefer to	have c	attle delivered	to	custom	feeder
	(indicate a	first and	second	preference)?			

Preference		Month
	First third Middle third Last third	

B. Description of cattle (use the following code).

Sex	Weight	Grade
S = Steers H = Heifers B = Bulls	1 = 0-399 $2 = 400-499$ $3 = 500-599$ $4 = 600-699$ $5 = 700-799$ $6 = 800-899$ $7 = 900-999$	HC = High choice LC = Low choice GD = Good ST = Standard

Number of head	Sex	Weight	Grade
1.		+ + + + + + + + + + + + + + + + + + + +	
2.			
3			W
4.			
5			· · · · · · · · · · · · · · · · · · ·
6			
7.			
8.			
9.			
10.			

SAMPLE CATTLE SLAUGHTERING CONTRACT

	This agreement made by and between	,	her	ein referr	ed
to	as Association;, herein referred t	to	as	Producer:	and
	, herein referred to as Custom Packer.			•	

WITNESSETH:

WHEREAS, Association is a cooperative association engaged in marketing and processing (including slaughtering) cattle and products derived therefrom and is the sole and exclusive bargaining agent for Producer;

WHEREAS, Producer is a member of Association and believes it to his advantage to have Custom Packer perform specified services on Producer's cattle and products derived therefrom, herein referred to as cattle; and

WHEREAS, Custom Packer desires and is able to perform specific services relating to the production and processing of cattle;

NOW THEREFORE, the parties hereby agree as follows:

<u>Delivery and Services</u> -- Producer agrees to deliver to Custom Packer, at place or places agreed to by the parties hereto, cattle described in the appendix hereto. Association shall notify Custom Packer at least thirty (30) days in advance of the date cattle covered hereunder are available for delivery to the premises of Custom Packer and such notice shall specify a seven (7) day range of delivery dates. Upon receipt of such notice Custom Packer shall notify Association at least fifteen (15) days in advance of the specific date and time Custom Packer desires such cattle to be delivered. Producer agrees that such cattle shall be in condition to be slaughtered (meat derived therefrom should be suitable for human consumption) at the time such cattle are loaded onto proper conveyance for shipment and delivery to Custom Packer; or if any cattle delivered hereunder are not in such condition, such cattle shall be handled in a manner agreed to by the parties hereto prior to delivery. Upon delivery, Custom Packer agrees to assume responsibility for the care and maintenance of such cattle prior to slaughtering. Custom Packer shall not be responsible for cattle deaths prior to slaughtering unless caused by negligence.

Custom Packer agrees to cooperate in all respects with the U.S. Department of Agriculture's carcass data service program of the Agricultural Marketing Service, or similar program instituted by Association. Custom Packer agrees to observe and conform to any other rules and regulations made by Association regarding the receiving, weighing, and related functions of slaughtering cattle. Such rules and regulations may be attached to and considered a part of this agreement.

Custom Packer grants Association the right to enter the premises where Custom Packer maintains and slaughters cattle covered hereunder

for inspecting, grading, and other purposes Association believes necessary.

Billing and Payment Procedure -- Custom Packer agrees to charge Producer a base slaughtering fee less drop, and separate charges for specific slaughtering and other services, agreed to by Association and Custom Packer in accordance with the following rate table:

Service or activity	Cost or charge
Base slaughtering fee* Holding period	\$ per head per head per day
Other services	
*Producer agrees to pay a base so drop, based on a mutually agreeable value exceeds base slaughtering fe Producer the difference through As	
Association within seven (7) days	pay Custom Packer through Association
Term of Agreement This agreesigned by the parties hereto and stattle covered hereunder are slaugh	ement becomes effective on the date hall continue in force until all htered as specified herein.
war, civil insurrection, fire, floomachinery, equipment or material, of federal, state or local authorities	revented or delayed by act of God, od, storm, strike, lockout, failure of or bylaw, regulation or order of s, or by any other performance of this performance of this agreement by such
IN WITNESS WHEREOF, the parties voluntarily subscribed their names	
Signed on the day of	_, 19
Producer	
Association	ent, Board of Directors
Custom Packer Name and Title	· · · · · · · · · · · · · · · · · · ·

Cattle Slaughtering Contract--Appendix

Description of slaughter steers, heifers, and bulls; and cull cows and herd bulls placed in custom cattle slaughtering option.

Α.	Indicate the eacustom packer. following that	(Cattle				•	
	Month		 Dai	te			

B. Description of cattle (use the following codes).

Sex	Weight	Grade
S = Steers H = Heifers C = Cows B = Bulls	1 = 0-399 2 = 400-499 3 = 500-599 4 = 600-699 5 = 700-799 6 = 800-899 7 = 900-999 8 = 1,000-1,099 9 = 1,100-1,199 10 = 1,200-1,299 11 = 1,300 and on	HC = High choice LC = Low choice GD = Good ST = Standard

	Number of head	Sex	Weight	Grade
1. 2.				
3.				
4. 5.				
6. 7.				
8. 9.				
10.				

DESCRIPTION MARKETING AND COMPUTER-ASSISTED POOLING

An example is presented and discussed to illustrate how feeder cattle are pooled on paper with computer assistance prior to marketing them via a teleauction exchange, and to illustrate how a cooperative might develop its own criteria for grading and describing cattle. The sample grading and description criteria were adapted from a grading system for feeder cattle proposed by the Southern Beef Council, and grading and description criteria currently used by a midwest cooperative (table 1). 1/2/ It is presented here as one example, for illustrative purposes only. Though most applicable to feeder cattle, the sample system is applied in this report to other classes of cattle. Elements of the system were included but not discussed in the appendix to the marketing agreement and in the appendix to each forward integration contract.

Paper pooling does not require using a computer, but a computer can save time and costs. Marketing cooperatives without computer equipment are not encouraged to purchase or lease such facilities solely for pooling cattle. Businesses and universities often share computer time and may perform required keypunching for a relatively low fee, compared with purchasing or leasing computer equipment and hiring operating personnel.

For this pooling example, hypothetical consignments to a feeder cattle auction were developed for 50 producers. Consignments were based on a special feeder cattle auction and published data, and followed guidelines designed to produce consignments closely representing actual consignments. A summary of consignments by descriptive trait is presented in table 2.

Fifty hypothetical producers consigned 1,172 head of cattle. They were sorted into 276 small but uniform lots. Then, a computer program sorted those lots by sex, weight, grade, herd class, and condition into 150 uniform lots after keypunching cattle descriptions onto data cards. 3/ The computer routine sorted cards (each card represented one lot of uniformly described cattle) into two sexes; each sex into five weight groups; each sex-weight combination into four grades; each sex-weight-grade combination into four herd classes; and each sex-weight-grade-herd combination into three condition classes. By combining condition classes, 4 additional condition classes were formed, and the number of pooled lots was reduced further, to 106. Condition classes added were: thin/normal (T/N), normal/thin (N/T), normal/fleshy (N/F),

^{1/} L.S. Pope, "Proposed feeder grades measure feedlot performance," in Feedlot Management, August 1975, pp. 8-11.

^{2/} MFA Livestock Association, Inc., in Marshall, Missouri.

^{3/} The computer routine was programmed in Easytrieve, an information retrieval and data management software system developed by Pansophic Systems, Inc., Oakbrook, Illinois.

and fleshy/normal (F/N). The thin/normal class had more thin than normal cattle; normal/thin, more normal than thin; and similarly for other groups. For this example, the cost for keypunching and computer time, excluding the one-time programming cost, was slightly more than one cent per head.

Using past results as a guide, prices were assigned to each of the 276 prepooled and 106 pooled lots of cattle. Price differentials for descriptive traits are shown in table 3. A base lot (2 to 9 head of low choice steers weighing 400 to 499 pounds from a C herd and in normal condition) was assigned an assumed sale price of \$34.62 per hundredweight. Sale prices for prepooled and pooled lots were the cumulative sum of price differences for traits varying from those of the base lot.

After pooling, 213 lots or 77 percent of the prepooled lots received a higher price; 54 lots or 20 percent received the same price; and 9 lots or 3 percent received a lower price. Of the 50 hypothetical producers, 49 earned higher gross returns; and one, the same returns. Average gross revenue increase per consignor was \$114.98; average gross revenue increase per head, \$4.93. Pooling benefited large producers as well as small ones, though small ones benefited more (table 4).

Table 1 -- Descriptive traits in a sample system of grading and describing cattle

Descriptive Trait	Explanation	:	Keypunching	Code
Cattle class	Feeder steers, heifers, and bulls (cattle sold for further feeding)		A	
	Slaughter steers, heifers, and bulls (cattle sold for slaughter)		В	
	Cull Cows and herd bulls (cattle sold for slaughter)		С	
Sex	Steers		S	
	Heifers		H	
	Cows		C	
	Bulls		В	
Weight	0 - 399 (pounds)		1	
	400-499		2	
	500-599		3	
	600-699		4	
	700-799		5	
	800-899		6	
	900-999		7	
	1,000-1,099		. 8	
	1,100-1,199		9	
	1,200-1,299		10	
	1,300 and over		11	•

Table 1 -- Descriptive traits in a sample system of grading and describing cattle (Cont'd)

Descriptive Trait	Explanation	Keypunching Code
Grade	High choice (cattle have above average frame, muscle development, and size for age; and produce USDA Choice quality grade, yield grade 1 and 2 carcasses)	HC
	Low choice (cattle have average or below frame, muscle development, and size for age; and produce USDA Choice quality grade, yield grade 3, 4, and 5 carcasses)	LC
	Good (cattle have average or below frame, muscle development, and size for age but lack genetic potential or are mismanaged; and produce USDA Good quality grade, yield grade 1, 2, and 3 carcasses)	GD
	Standard (cattle lack frame, muscle development, and genetic potential; and produce USDA Good quality grade, yield grade 4 and 5, or lower quality grade carcasses)	ST
Herd class	A (all herd bulls are performance tested; all cows and replacement heifers are sired by performance tested bulls)	A
	B (all herd bulls are performance tested; one-half or more of cows and replacement heifers are sired by performance tested bulls)	В
	C (all herd bulls are performance tested; less than one-half of cows and replacement heifers are sired by performance tested bulls)	С
	D (not all bulls are performance tested)	D
Condition	Thin	T
	Normal Fleshy or fat	N F

Table 2--Summary of hypothetical feeder cattle consignments, by descriptive trait

Descriptive :	Number	:	Percent of
trait :	of head	<u>:</u>	total 1/
Cattle class			
Feeder steers,			
heifers, and bulls (A)	1,172		100
·			
Sex	707		62
Steers (S)	727		38
Heifers (H)	445		36
Weight			
0-399 (1)	299		26
400-499 (2)	442		38
500-599 (3)	255		22
600-699 (4)	133		11.
700–799 (5)	43		4
Grade			
High choice (HC)	325		28
Low choice (LC)	455		39
Good (GD)	330		28
Standard (ST)	62		5
Standard (SI)			
Herd class	95		8
A (A)	49		4
В (В)	379		32
C (C)	379 649		55
D (D)	047		22
Condition			8
Thin (T)	99		82
Normal (N)	958		10
Fleshy or fat (F)	115		10

 $[\]frac{1}{100}$ Total in each group of descriptive traits does not equal 100 percent due to rounding.

Table 3 -- Price differences of feeder cattle for a hypothetical feeder cattle auction, by descriptive trait

Descriptive trait	: Price difference
	(\$/ewt.)
Sale lot size (number of head):	
1 1/	-1.68
2-9 (Base) 1/ 10-19	1.63
20-39	1.85
40 +	2.45
Sex and weight:	
Steers - 0-399 (1bs.)	1.53
400-499 (Base	e)
500-599	-1.93 -3.04
600-699 700-799	-4.07
700-733	7,07
Heifers - 0-399	-3.41
400-499	-4.98
500-599	-5.04
600-699	-5.90
700-799	-6.57
Grade: HC	1.37
LC (Base)	and the second of
GD	-1.12
ST	-3.57
Herd class:	1 00
A	1.92 .95
B G (Page)	.93
C (Base) D	- .19
Condition:	
T	.78
T/N	, 52
N/T	.26
N (Base)	
N/F	06
F/N	11
F	16

^{1/} Price for a base lot of feeder cattle was \$34.62 per hundredweight.

Table 4--Average increase in gross revenue per head per consignor for a hypothetical feeder cattle auction by number of head consigned

Number of head consigned	Number of consignors	:Average increase in gross : revenue per head per : consignor (\$/cwt.)
1-10	11	6.74
11-20	15	6.56
21-30	13	4.99
31-40	3	3.39
41-50	4	4.94
51 and over	 4	3.19

SAMPLE MARKETING AGREEMENT SUMMARY FORM

	A. Cattle inven	tory, January	y 1, 19	Nur	mber of 1	nead
				Beef	Dairy	<u>Total</u>
1 2 3 4	Cows that have cal Replacement heifer Bulls (for breeding Steers, nonreplace (not for breeding Steers, heifers, a					
	B. Increase in o	cattle number	rs, January 1 to 1	December 31	1, 19	_•
				Nun	nber of h	nead
				<u>Beef</u>	Dairy	<u>Total</u>
2 3 4	Purchase of cows to replacement heifer Purchase of bulls 500 pounds Purchase of steers heifers, and bull Purchases of steer under 500 pounds Calf crop C. Marketings of to December	bulls, Jar				
			Sex			
Moı	nth	<u>N</u>	Number of head			
		Steers	Heifers	Bulls		
January February March April May June July August					- - - -	

September October November December

Month

Number of head

	0-399	400-499	500-599	600-699	700-799	800-899	900-999
January February March April May June July August September October November							
December							·,

-- Grade --

Month

Number of head

	High choice	Low choice	Good	Standard
January February March				
April May June				
July August				
September October November				
December	***************************************		pare 40.00 mm - 10.00	

-- Integration plans --

Month		Number of head	
	<u>A</u>	<u>B</u>	<u>C</u>
January February March April May June July August September October November December			
	arketings of slaughter so December 31, 19	teers, heifers, and bu	lls, January l
		Sex	
Month		Number of head	
	Steers	<u>Heifers</u>	<u>Bulls</u>
January February March April May June July August September October			

November December

Month

Number of head

1,300- and over												
1,200- 1,299												
1,100-												
1,000- 1,099												
-006												
800- 899												
700-												
-009 -009												
500- 599					-							
400 -												
999 399										F		
	January	March	Anril	May	June	July	August	September	October	November	December	

		Grade		
Month		Number of	head	
<u>H1</u>	gh Choice	Low Choice	Good	Standard
January February March April May June July August September October November December				

-- Integration Plans --

Month	Number of head
	E
January February	
March April May	-
June July	
August September	•
October November	
December	

-- Sex --Month Number of head Cows <u>Bulls</u> January February March April May June July August September October November December -- Weight --Month Number of head 600-700--008 900-1,000- 1,100-1,200-1,300 & 699 799 899 999 1,099 1,199 1,299 over January February March April May June Ju1y August September

E. Marketings of cull cows and herd bulls, January 1 to

December 31, 19____.

October November December

-- Grade --

М	o	n	t	h

Number of head

	High choice	Low choice	Good	Standard
January February March April May June July August September October November December				

-- Integration Plans --

Month		Number of head	
	<u>B</u>	<u>D</u>	<u>E</u>
January February March April May June July August September October November December			

SAMPLE MARKETING (TELEAUCTION) CONSIGNMENT FORM

A. Auction date

Cattle class: Feeder steers, heifers, and bulls.

Condition	T = Thin N = Normal F = Fleshy or fat	Condition	
	nce tested (PT) heifers, ls heifers, lls heifers,	Herd class	
Herd class	A = Bulls, 100% performance tested (PT) Cows and replacement heifers, 100% sired by PT bulls Gows and replacement heifers, 50-99% sired by PT bulls C = Bulls, 100% PT Cows and replacement heifers, 0-49% sired by PT bulls. D = Bulls, 0-99% PT	ht Grade	
Grade	<pre>HC = High choice LC = Low choice GD = Good ST = Standard</pre>	Sex Weight	
Weight	1 = 0-399 2 = 400-499 3 = 500-599 4 = 600-699 5 = 700-799 6 = 800-899 7 = 900-999		
Sex	S = Steers H = Heifers B = Bulls	Number of head 1. 2. 3. 4.	8.99.00

B. Auction date

: Slaughter steers, heifers, and bulls.

Condition	T = Thin N = Normal F = Fleshy or fat	Condition	
class	Bulls, 100% performance tested (PT) Cows and replacement heifers, 100% sired by PT bulls Bulls, 100% PT Cows and replacement heifers, 50-99% sired by PT bulls Bulls, 100% PT Cows and replacement heifers, 0-49% sired by PT bulls. Bulls, 0-99% PT	Herd class	
Herd class	A = Bulls, 100% performance teste Cows and replacement heifers, 100% sired by PT bulls B = Bulls, 100% PT Cows and replacement heifers, 50-99% sired by PT bulls Cows and replacement heifers, 0-49% sired by PT bulls. D = Bulls, 0-99% PT	Grade	
Grade	HC = High choice LC = Low choice GD = Good ST = Standard	Weight	
Weight	0- 399 400- 499 500- 599 600- 699 700- 799 800- 899 900- 999 ,200-1,199 ,200-1,299 ,300 & over	Sex	
<u> </u>	32 1 2 6 4 5 9 7 8 6 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Number of head 1. 2. 3. 6. 6. 7. 8. 9.	

		Condition	T = Thin N = Normal F = Fleshy or fat	Condition	
		m)	cormance tested (PT) ment heifers, l bulls ment heifers, PT bulls ment heifers, T bulls.	Herd class	
, 19		Herd class	Bulls, 100% performance tested (PT) Cows and replacement heifers, 100% sired by PT bulls Bulls, 100% PT Cows and replacement heifers, 50-99% sired by PT bulls Bulls, 100% PT Cows and replacement heifers, 0-49% sired by PT bulls. Bulls, 0-99% PT	Grade	
Auction date			D C B H	Weight	
C. Auctio	herd bulls.	Grade	HC = High choice LC = Low choice GD = Good ST = Standard	Sex	
	Cull cows and herd bulls.	Weight	1 = 0-399 2 = 400-499 3 = 500-599 4 = 600-699 5 = 700-799 6 = 800-899 7 = 900-999	head	
	Cattle class:	Sex	S H Steers H Heifers	Number of	1. 2. 3. 4. 5. 6. 7. 8. 9.
	*				

ANALYSIS OF TELEAUCTION RESULTS

Two examples of how teleauction results can be analyzed for producers are presented. They use the hypothetical consignment and price data in the description marketing and pooling example. Each example requires additional interpretation to be most useful to producers.

The first example is a simple summary of sale lots and number of head sold by descriptive trait, with a weighted average price for each trait (table 5). 4/ It shows the relative value buyers placed on each descriptive trait. General -- not specific -- price differences are provided in this procedure because interrelationships between traits are not accounted for in the computation. For example, the average price paid for feeder cattle from B herds was \$35.44 per hundredweight; and from A herds, \$35.29. However, in the process of assigning prices to pooled lots, it was assumed that feeder cattle from A herds received a \$.97 per hundredweight premium over those from B herds. If feeder cattle from B herds had been sold in 30 to 39 head lots; and those from A herds, in 2 to 9 head lots, that could explain the discrepancy. Simple summarization does not enable that type of analysis and interpretation. It does show general relationships and over time provides reasonably clear buyer preferences, though not specific price differences for those preferences. In the example, larger lots are preferred to smaller lots, but the difference between 2 to 9 head lots and 30 to 39 head lots is not necessarily \$3.82 per hundredweight.

More refined analyses consider interrelationships among descriptive traits and produce more accurate price differences among traits. Two possible statistical methods are multiple linear regression and analysis of variance. A multiple linear regression analysis of the hypothetical feeder cattle auction was conducted and results are presented in table 6. 5/ Note that, as expected, price differences are similar to those assigned to prepooled and pooled lots (refer to table 3).

^{4/} See previous footnote.

^{5/} The procedure is discussed in Albert G. Madsen and Zeng Rung Liu, Pricing Feeder Cattle at Colorado Auctions, Colorado Agricultural Experiment Station Technical Bulletin 114, June 1971.

Table 5--Hypothetical feeder cattle auction summary, by descriptive traits

D	:	Number	:	Number	:	Weighted
Descriptive trait	:	of	:	of		erage price
	:	lots	<u>:</u>	head	:	(\$/cwt.)
Total		106		1,172		33.94
Sale lot size						
(number of head)						
1		12		12		28.21
2-9		42		200		31.85
10-19		34		456		33.34
20-29		10		239		35.48
30-39		7		225		35.67
40 and over		1		40		34.11
Sex and weight						
Steers:						
0-399 (pounds)		11		144		36.98
400-499		17		281		36.38
500-599		14		176		34,47
600-699		9		93		33.33
700 and over		6		33		31.94
All steers		57		727		35.44
Heifers:					•	
0-399		1.3		155		32.67
400-499		14		161		31.68
500-599		11		79		30.77
600-699		7		40		28.56
700 and over		4		10		27.52
All heifers		49		445		31.49
Grade						
HC		30		325		35.35
LC		38		455		34.20
GD		24		330		32.84
ST		14		62		30.56
lerd class						
A		15		95		35.29
В		12		49		35.44
c		37		379		33.90
D .		42		649		33.66
				0.15		33.00
Condition						
T		3		8		32.51
T/N						
N/T		25		410		33.72
N		41		332		33.50
N/F		26		381		34.80
F/N		3		23 .		34.27
F	201	8		18		29.05

Table 6--Price differences of descriptive traits, derived by multiple linear regression analysis of a hypothetical feeder cattle auction $\underline{1}/$

	:Price difference from:	
Descriptive trait	: base (regression : coefficient)(\$/cwt.):	t value $\frac{2}{}$
1-2-1-2-1-2-1-2-1-2-1-2-1-2-1-2-1-2-1-2	. coefficients (q/cwc./.	
Base price (regression intercept)	36.20	
Sale lot size (number of head)		
1	-3.42	-29.50
2-9	-1.72	-24.26
10-19 (base)	and the	
20-29	.23	2.33
30 and over	.34	3.17
Sex and weight		
Steers:		
0-399 (pounds)	1.45	14.25
400-499 (base)		
500-599	-1.97	-20.97
600 and over	-3.37	-33.07
Heifers:		
0-399	-3.34	-33.78
400-499	-4.96	-51.36
500-599	-4.95	-43.74
600 and over	-6.00	-48.46
Grade		
HC	1.35	20.32
LC (base)		
GD	- 1,12	-15.56
ST	-3.41	-33.13
lerd class		
A	1.88	19.94
В	1.12	10.62
C (base)		****
D	13	-1.94
ondition		
T and T/N	1.06	6.28
N/T	.35	4.39
N (base)	Prof Good	4.57
N/F	.00	0.06
F and F/N	34	-3.58

^{1/ 2 2 222}

s at the 95 percent confidence